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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/799,912	03/12/2004	David Gani	T-97334 US D1	8290

27624 7590 03/24/2006

AKZO NOBEL INC.  
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EXAMINER
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CHOI, LING SIU

ART UNIT	PAPER NUMBER
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1713

DATE MAILED: 03/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/799,912

Applicant(s)

GANI ET AL.

Examiner

Ling-Siu Choi

Art Unit

1713

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on 12 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☒ Claim(s) 6-11 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☒ Certified copies of the priority documents have been received in Application No. 09/485,195.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

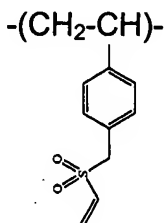
- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 11/07/05.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

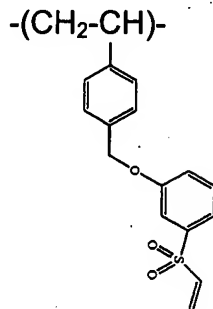
1. This Application is a Division of US Application Number 09/485,195 filed May 4, 2000, now abandoned, which is a 371 of PCT/GB98/02264 filed August 5, 1998. Claims 1-11 are now pending, wherein claims 1-7 are drawn to a polymer; claims 8-10 are drawn to a method to produce a polymer; claim 11 is drawn to a microreactor.

***Claim Objections***

2. Claims 5 and 6 -7 are objected to because of the following informalities: (a) claim 5, Formula II, the formula is suggested to be changed to



(b) claim 6, Formula III, the formula is suggested to be changed to



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(c) claim 7-11 are objected to under 37 CFR 1.75(c) as being in improper form because claims 7-11 are multiple dependent claims and they depend on the other multiple dependent claims 3 and 6 or 3, 6 and 7. See MPEP ' 608.01(n). Accordingly, the claims 7-11 have not been further treated on the merits.

Appropriate correction is required.

### ***Claim Analysis***

#### 3. Summary of claim 1:

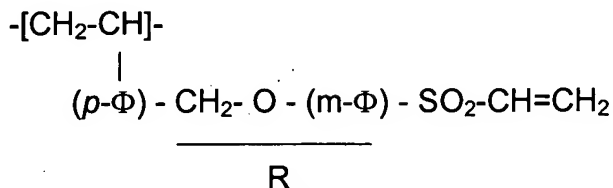
A polymer comprising a side chain of Formula I:
$-(p-\Phi)-R-SO_2-CH=CH_2$
wherein R is an alkyl, aryl, oxyalkyl, or oxyaryl linker group

#### Summary of claim 5

A polymer comprising a side chain of Formula II:
$  \begin{array}{c}  -[CH_2-CH]- \\    \\  (p-\Phi)-CH_2-SO_2-CH=CH_2 \\  \hline  R  \end{array}  $
wherein R is a C <sub>1-6</sub> alkyl linker group

### Summary of claim 6

A polymer comprising a side chain of Formula III:



wherein R is an alkyl, aryl, oxyalkyl, or oxyaryl linker group

### ***Claim Rejections - 35 USC § 102***

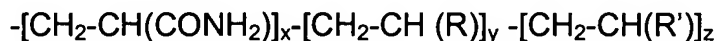
4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

**A person shall be entitled to a patent unless --**

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Ogawa et al. (US 4,600,641).

Ogawa et al. disclose a polymer:

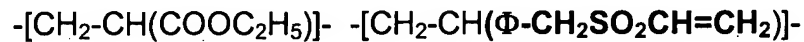


for adhesive layer, wherein R=  $-\text{C}_6\text{H}_4-\text{CH}_2\text{SO}_2\text{CH}=\text{CH}_2$  (col. 10, lines 10 and 31). Thus, the present claims are anticipated by the disclosure of Ogawa et al.

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6. Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Noriki et al. (JP 63-220239).

Noriki et al. disclose a polymer having the following vinylsulfone group:



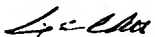
( Formulae p-6 and p-7 on page 328).

### **Conclusion**

6. Claim 6 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ling-Siu Choi whose telephone number is 571-272-1098.

If attempt to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reach on 571-272-1114.



LING-SUI CHOI  
PRIMARY EXAMINER

March 15, 2006